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Herbals : The Vade Mecum of the Sixteenth and Seventeenth Centuries

William G. Peacher M.D.

From *Herbals of Five Centuries* by Claus Nissen, Zurich, Munich and Olten, 1958.
Plate 20, by Leonhard Fuchs, published in Basle, Switzerland, 1545.
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THE COURIER

SYRACUSE UNIVERSITY LIBRARY ASSOCIATES VOLUME IX, NUMBER 2

JANUARY, 1972

TABLE OF CONTENTS

Herbals: The Vade Mecum *of the Sixteenth and Seventeenth Centuries*

by William G. Peacher, M.D.

Claus Nissen, in his book, *Herbals of Five Centuries,* 1958, defines a herbal as a book on medicinal plants which describes their appearance, gathering and preparation, contains notes concerning their preservation and storage, and finally provides the inclusion of data about their indication and dosage. The word "herb" was first used around 1500 to differentiate a plant with medicinal properties from an ordinary plant. Actually, manuscripts surviving from remote antiquity indicate a knowledge of this subject. With the advent of printing and advances in wood and metal engraving, the herbal became the indispensable reference book for physicians, apothecaries and the ordinary layman. Books of this type were so frequently used that few of the early editions have survived. Their popularity, however, has never waned and reprints, some even in paperback, are still appearing.

Syracuse University is fortunate in having several of these early herbals in both the Mayfield Library and the Rare Book Department of the George Arents Research Library. Ranging in size from sextodecimo (16mo) to small elephant folio, they are masterpieces of binding, superb in illustration and remarkable in description.

John Gerard (1545-1607), barber-surgeon and horticulturist, cultivated a renowned garden in the fashionable district of Holborn, England, for more than twenty years. It formed the basis of his catalogue of garden plants completed in 1596, the first of its type. The only known copy extant is in the Sloan Collection of the British Museum. A second edition appeared in 1599, and a more modern reprint was edited by B.D. Jackson in 1876.

Gerard's reputation was founded on *The Herball or General History of Plantes* published by John Norton in 1597, which led the field for more than a generation. This magnificent, superbly bound, large volume is now in the Mayfield Library. It is enchanting to read, abounding in beautiful and succinct descriptions of such exotically named plants as angelica, fennel,

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hellebore, thyme, rosemary, primrose and jasmine, and many other old-fashioned English flowers, all expressed in the best Elizabethan manner. The preface suggests the pleasures that follow:

> What greater delight is there than to behold the earth apparelled with plants as with a robe of embroidered works, set with Orient pearls and garnished with great diversitie of rare and costly jewels? But these delights are in the outward senses. The principal delight is in the minde, singularly enriched with the knowledge of these invisible things, setting forth to us the invisible wisdome and admirable workmanship of almighty God.[1]

Perhaps the greatest value of this book is in Gerard's own personal observations, including contemporary folklore and references to persons and places of antiquarian interest. There are endless descriptions of herbs that cure all the known maladies of mankind: mental, emotional and physical.

Gerard's book was not entirely original. Rather, it was a rearrangement of Dr. Priest's translation into English of *Stirpium Historiae Pemptades Sex Sine Libri XXX,* the final work of Rembert Dodoens (1517-1585). This was the fifth revision (first Latin) published by Plantin in 1583 and reprinted in 1616. It had appeared initially in Flemish (Antwerp, 1554). Further, the majority of the 1800 wood blocks used were borrowed from the German botanist, Jacob Dietrich[2] of Berzzabern's noted illustrated herbal published by Nicholas Basse in 1590, *Eicones Plantarum.*[3] The sixteen illustrations added by Gerard are inferior but do include the first published representation of the "potatoes of Virginia." Reviewers noted so many errors in Gerard's *Herball* that the publisher commissioned the celebrated de l'Obel to correct the work.

However, before judging Gerard's piratical tendencies too severely, it should be pointed out that many of Dodoens' pictures were derived from Leonhard Fuchs (1501–1566), German botanist, and a fifth century manuscript copy of Dioscorides' work on herbs (Vienna Library). It is worth noting that all the English herbals compiled in the sixteenth and early seventeenth centuries used the wood blocks or were copied from the illustrations of Flemish or German sources. The only exception was John Parkinson's *Paradisi in Sole Paradisus Terrestris,* published in 1629.

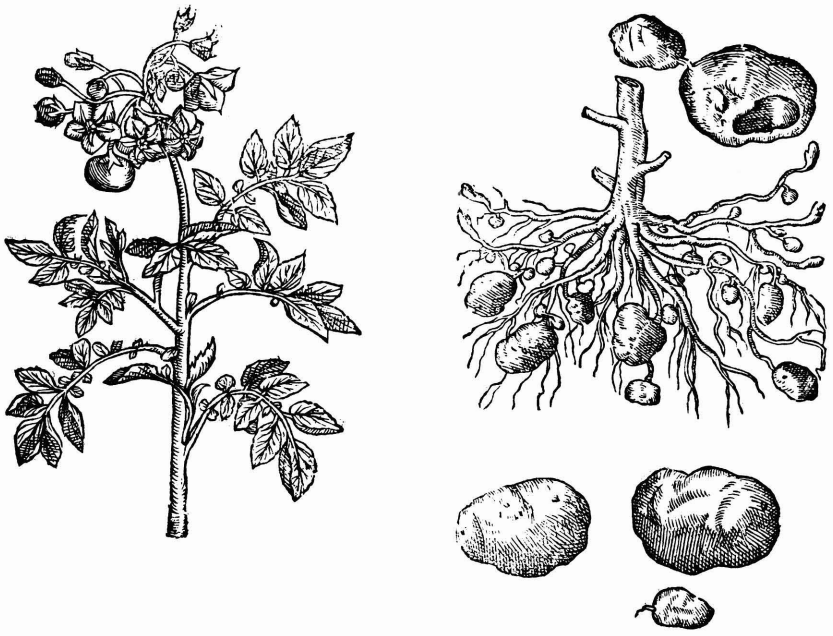
Gerard's description of the potato in his "Of Potatoes of Virginia," chapter 350, merits printing here:

> The Place – it groweth naturally in America where it was first discovered as reporteth by C. Clusius since which time I have

[1] All excerpts from the Gerard *Herball* are quoted from Thomas Johnson's revision of 1633 (see page 6).

[2] Latin sobriquet: Theodorus Tabernaemontanus.

[3] A quarto volume of 1,128 pages with 2,255 woodcuts.



"Virginia Potatoes." From Thomas Johnson's 1633 revision of *The Herball or General History of Plantes* by John Gerard, published originally in 1597.

> received rootes hereof from Virginia, otherwise called Norembega, which growe and prosper in my garden, as in their owne native countrie. The Indians do call this plant Papus (meaning the rootes) by which name also the common Potatoes are called in those Indian countries. We have the name proper unto it, mentioned in the title. Because it has not only the shape and proportion of Potatoes, but also the pleasant taste and vertues of the same, we may call it in English potatoes of America or Virginia.
>
> Temperature and vertues – The temperature and vertues as referred unto the common Potatoes being likewise a foode, as also a meate for pleasure, equall in goodness and wholesomenesse unto the same, being either rosted in the embers, or boiled and eaten with oile, vinegar and pepper or dressed any other way by the hand of some cunning in cookerie.

This so-called "Virginia potato" had actually been imported by the Spaniards from Quito, Ecuador, in 1580, Gerard cultivating it in his garden as early as 1596. It is to be differentiated from the sweet potato (discussed in a

chapter titled "Of Potatoes") which had been known for at least eighty years. Skakespeare refers to the latter in *The Merry Wives of Windsor* and *Troilus and Cressida.*"[4]

Gerard indicates that the name "digitalis" was derived from the appearance of the plant foxglove. He states

> The stalke is straight, from the middle whereof to the top stand the flowers, set in a course one by another upon one side of the stalke, hanging downwardes with the bottome upwarde in forme long, like almost finger stalkes, whereof it tooke his name Digitalis.

Former uses of digitalis include one which indicates that "when boiled with honied water or sugar, (it) cleanses the breath and acts as an expectorant." Gerard further explains

> Boiled in water or wine, and drunken, (it) doth cut and consume the thicke toughnesse of grosse and slimie flegme and naughty humours, it openeth also the stopping of the liver, spleen and milt, and of other inward parts.

It was not until 1776 that William Withering (1741-1799), one of the most able clinicians of his time, learned from an elderly woman in Shropshire the use of foxglove in "dropsey." His *An account of the Foxglove, and some of its medical uses; with practical remarks on dropsy, and other diseases,* published at Birmingham in 1785, is a pharmacological classic. Digitalis in its various forms is invaluable to this day in the therapy of cardiovascular disease.

Some other interesting statements of Gerard concerning therapeutic remedies include "The juice of the onion anointed upon a pild or bald head in the sun, bringeth the haire againe very speedily." A purgative of hellebore was advised for madness. For marital problems, Gerard suggests "the application of the root of Solomons Seale stamped while it is fresh and greene to any black or blew spots, gotten by falls or woman's wilfulness in stumbling upon her husband's hasty fists."

Gerard's herbal was revised by Thomas Johnson in 1633. Johnson, a well known London apothecary and botanist, added an historical introduction. He was able to secure a set of 2,766 blocks previously used by Plantin in illustrating numerous botanical works, thus adding greatly to the success of the new volume. Johnson traveled extensively throughout the kingdom in search of rare plants, and the new edition was enriched with more than eight hundred. An equally popular second edition appeared in 1636. Both of these

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[4]*Merry Wives of Windsor,* Act V, Scene 5: "Let the sky rain potatoes." *Troilus and Cressida,* Act V, Scene 2: "How the devil luxury, with his fat rump, and potatoe finger, tickles these together."

editions are available in the Arents Library for further study and contain much the same material as that described by Gerard.[5]

Nicholas Culpeper (1616-1654), astrologer and physician in Spitalfields, was of distinguished lineage. Although destined for the Church, he elected to leave Cambridge following the death of his fiancée in a violent electrical storm. Apprenticed to an apothecary in St. Helens, Bishopgate, he demonstrated an unusual aptitude for *materia medica.* He translated the Pharmacopoeia into English for the first time in 1649 as *A Physicall Directory, or a Translation of the London Dispensatory made by the College of Physicians in London* – with many hundred additions, which unfortunately resulted in unfavorable criticism by the College of Physicians because it had not been authorized. This conflict was intensified after his 1652 publication, *The English Physician or an Astrologo-physical Discourse of the Vulgar Herbs of this Nation. Being a Compleat Method of Physick, whereby a man may preserve his Body in health: or cure himself, being sick, for three pence charge, with such things one-ly as grow in England, they being most fit for English Bodies.* This was a result of his correlation of herbs and astrology. He described various herbs as being under the dominance of the sun, moon, planets and constellations of the zodiac. Each planet was thought to result in different diseases, the cure of which was effected by the administration of an herb belonging to an opposite planet, e.g., illness arising from Jupiter was healed by Mercurian herbs and vice-versa, Mars by Venus and to the contrary. Sickness could also be cured by sympathy, each heavenly body curing its own disease, e.g., the herbs of the sun and moon curing the eyes, Saturn the spleen, Jupiter the liver, Mars the gall and disease of choler, and Venus the instruments of generation. Foxglove was controlled by Venus and cleaned and purged the body and was useful in King's Evil. As a juice or ointment, two handfuls with four ounces of polypody in ale was used to cure "diverse of the falling sickness."

Although the Library does not have the original edition of this very popular herbal, it does have a later edition in three volumes (12mo, 1840). Two modern abridged editions have appeared in recent years: *The Simmonite-Culpeper Herbal Remedies* by William J. Simmonite and Nicholas Culpeper through W. Fulsham and Company, Ltd. of England, published in 1957, and *Culpeper's English Physician and Complete Herbal* by Mrs. C.F. Leyel, printed by Arco Publications, London, 1961.[6]

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[5] Interested readers can purchase *Leaves from Gerard's Herbal,* "arranged for garden lovers" by Marcus Woodward and printed by Dover Publications, Inc., New York, 1969.

[6] Three modern, general reviews on the subject of herbals are *The Old English Herbals* by Eleanour S. Rohde, Longmans, Green & Company, London, 1922 (in the Mayfield Library), and *Herbals: Their Origin and Evolution* by Agnes Arbor, Cambridge University Press, 1953, second edition (in the Rare Book Department), both out of print. However, one can purchase a paperback reprint of the 1912 edition of *The Book of Herb Lore,* 1971, by Lady Rosalind Northcote, through Dover Publications, Inc., New York City.

Botanologia: The English Herbal or History of Plants by William Salmon, M.D., another volume present in the Rare Book Department, was published in 1710. Seven hundred fifty-two English herbs are discussed, including names (in Latin, Greek and English), description, time, place, qualities, specifications, preparation, virtues and dose with suitable illustrations:

> Foxglove as a liquid juice purges and cleanses the Lungs, Stomach and Bowels; but ought to be given in not too great a quantity, because of its violent Operation. It may be given from three Spoonfuls to Six, in Mead or White Port Wine, according to Age and Strength; it works strongly both upwards and downwards, and prevails against the Scurvy, Dropsie, Jaundice, Gout and Rhumatism; and is found by experience to be an excellent thing against the King's Evil. Outwardly applied, it heals any fresh or green Wound. . . .

In regard to the dandelion:

> The liquid juice of Leaves and Roots. It may be given to two to three ounces in a Morning fasting, and likewise at Night going to Bed, either alone by it self, or mixt with a Glass of White Port Wine, to purify the Blood and Juices, open all sorts of Obstructions of the Bowels, expel the Jaundice, provoke Urine, resist Hypochondriack Melancholy, and ease the Pain of the Spleen.

Foxglove – Digitalis. From *Botanologia: The English Herbal or History of Plants* by William Salmon, M.D., 1710.

Mint from the garden in the form of a liquid juice mixed with vinegar was recommended by Dioscorides to stop bleeding. Salmon used it for vomiting and when a syrup of mint was mixed with "a few graines of long pepper," it was found not only to be "extreamly Stomachical" but provoked "Venery or Bodily Lust exceedingly." It was also used to kill long round worms in the stomach and "Guts."

Poppy in the form of a liquid, then as now, was used as an anodyne to ease and relieve pain by local application two to three times daily; ultimately it stopped catarrh and vehement cough, gave rest, eased and caused sleep.

The Rare Book Department's first edition of John Hill's *British Herbal* was published in London in 1756. A medical man, Hill followed the pattern established by his predecessors with a general history of plants and trees native to England, together with some suggestions as to their medical properties. He introduced the classification described by Linnaeus (1707-1788) in his *Species Plantarum: 1753.*

In describing poppy, Hill stated that the virtues of the several varieties were similar but to a different degree. All were soporific and of wonderful virtue against pain. Its tendency toward addiction was stressed. Foxglove or digitalis was a powerful emetic and in smaller doses a brisk purge. People in West England boiled a handful of leaves or three to four clusters of roots in ale; administered according to strength, it cured quatran agues and epileptic fits of long continuance.

Another beautifully bound folio tome was written by Theodori Zwingeri in 1744, *Theatrum Botanicum.* The illustrations in water color, all done by hand, are well worth a visit to the Mayfield Library even though the text is in German.

An Herbal for the Bible was translated by Thomas Newton in 1587. Newton, physician, cleric and teacher, described the virtues, qualities, nature, properties, operations and effects of herbs, plants, trees and fruits of the Bible. It is a small book (16mo) of fifty chapters. Biblical quotations appear in the margins with explanatory text. The book is of little medical value with the main stress on symbolism and philosophical observations respecting the subjects discussed and their use in ceremonial and sacred rites. Some examples are:

Chapter 2: Qualities, properties and nature of mandrake
Genesis 30:14–16

Chapter 43: Apples and fruits in general
Amos 8:1, Revelation 18:14

Chapter 48: Almond Tree
Genesis 43:11, Ecclesiastes 12:6

Chapter 50: Shrubs, shoots, sprigs, boughs, etc.
Isaiah 4:2, Hosea 14:5

One of the most interesting and ambitious works on herbals in its size and scope is the small elephant folio edited by Nissen, noted at the beginning of this essay. This masterpiece consists of a limited English edition of one hundred copies of fifty illustrated, descriptive pages, each taken from one of a variety of incomplete early herbals by numerous authors. Published in 1958 as the inspiration of Alfred Frauendorfer, Dr. Lotte Roth-Wolfle and Rudolph Weiss-Hesse, antiquarian book dealers, it contains a wealth of illustrated data unobtainable elsewhere in one edition. It allows a complete study of the period under discussion and covers the earliest printed herbals with examples of works of the leaders in the field in Germany (Brunfels, Bock, Fuchs, Lonitzer, Roesslin, Ryff), Italy (Mattioli), Switzerland (Jacob Diether), France (Chaumeton, Chamberet), Low Countries (Dodoens, de l'Ecluse, de l'Obel) and England (William Turner, Gerard, Salmon). The evolution of the art of plant description, classification and illustration can also be studied compositely. The slip case contains a descriptive booklet by Nissen.

A word should be said concerning herbals in the low countries. Their appearance there was due not only to the great investigators in this field, Dodoens, de l'Ecluse and de l'Obel, but also to the energies and devotion to the printing craft of Christopher Plantin (1514–1588) of Antwerp, the dean of publishers of the period. Plantin was diversified. In addition to Biblical and classical works, many in illustrated editions, he issued scientific publications of the greatest investigators of the period: Vesalius, Cordus, Gemma, Orta, Monardes, Della Porta, Acosta, Clusius and Lobelius. These appeared in French, German, Spanish and Dutch as well as in Greek, Hebrew and Latin.[7]

Fortunately for the local researcher, two other great works, not included in Nissen, are available for study in the Arents Library, the *Herbarium* of Apuleius Plantonicus and the "Badianus Manuscript," both in facsimile form. One copy of the former was reprinted by the Oxford University Press in 1925, its title indicating its origin: *The Herbal of Apuleius Barbarus from the early 12th century manuscript formerly in the Abbey of Bury St. Edmunds.* Thought to have been written in Greek as early as the fifth century, it was the first herbal to be introduced into England. It continued to play an important part in the history of medicine to the Middle Ages, concerning itself with the virtues of herbs as remedies for the maladies of mankind rather than with accurate botanical description and classification. Plants were regarded as "simples" or simple constituents of compound

[7] A bookbinder and leather worker by trade, Plantin was diverted to printing by an accidental injury. His success can be gleaned by the patronage of the Duke of Savoy and the King of France, but his real mark was made in inspiring devotion and interest in the field of printing within his own family. Even Plantin could not prognosticate that his business, established in 1576, would continue through eight generations to Edouard Moretus, the last of this distinguished line. The city of Antwerp appropriately purchased the *Maison Plantin* in 1876, three centuries after it was organized, and this veritable treasury of the history of the art of printing may be visited today as the *Musée Plantin Moretus.*

medicines. Illustrations were crude and included the whole plant with its roots. Descriptions of herbs were often followed by prayers and incantations to be given during their gathering, preparation and use. Unfortunately, frequent copying through the centuries resulted in continuing deterioration and errors.

In fact, the Apuleius sketches are thought to have been traced to a much earlier origin, the works of Pedanios Dioscorides, a Greek physician of the first century A.D., whose *De Materia Medica Libri Quinque* included approximately five hundred plants and was one of the recognized authentics in *materia medica* and to a lesser extent Botany for more than fifteen hundred years. Dioscorides' work was derived from his teacher, Krateuas, physician to Mithradates VI, Eupater, King of Pontus, 120-63 B.C. Pliny (23-79 A.D.) also discussed plants in his *Historia Naturalis* during this period.

Perhaps the most remarkable of the Library's books in this area is the "Badianus Manuscript," 1552, the earliest American medical book and the sole Aztec herbal.[8] Although the illustrations are primitive, stereotyped and lacking in perspective as one would expect, the colors and enduring qualities of the native dyes are charming. A delight to the senses, they have lost none of their original brilliance and pristine clarity in their reproduction through the centuries. This is a must book, along with Nissen, in the field of herbals for those with limited time at their disposal. It was written by a young Aztec physician, Martinus de la Cruz, in the original native language, Nahuatl, and translated into Latin by Juannes Badianus. The Aztec plant names were retained as there were no Latin equivalents. However, the accompanying illustrations were helpful in making modern botanical identification.

The manuscript was devoted to medical rather than surgical problems. Remedies were usually complex formulae containing various plant extracts to which might be added earth, diverse stones, bezoars and parts of animals. An epileptic was thought to be aided by eating the cooked brain of a fox and weasel. It also was thought that a stag brain helped those afflicted with mental stupor, and the brain of a weasel was used in an ointment for infantile infirmities. For treatment of the head

> the shrubs *xiuhecapahtli, yztac, ocoxochitl, teamoxtli,* and the precious stones *tetahultl, yztactlalli, eztetl,* and *temamatlatzin* ground up together in cold water stop heat in the head and when ground up in hot water stop coldness therein. Apply three times a day, morning noon and evening, and the neck and throat are to be bound with the sinew of an eagle's foot and neck. One suffering from headache should eat onions in honey, should not sit in the sun, not work and not enter the baths.

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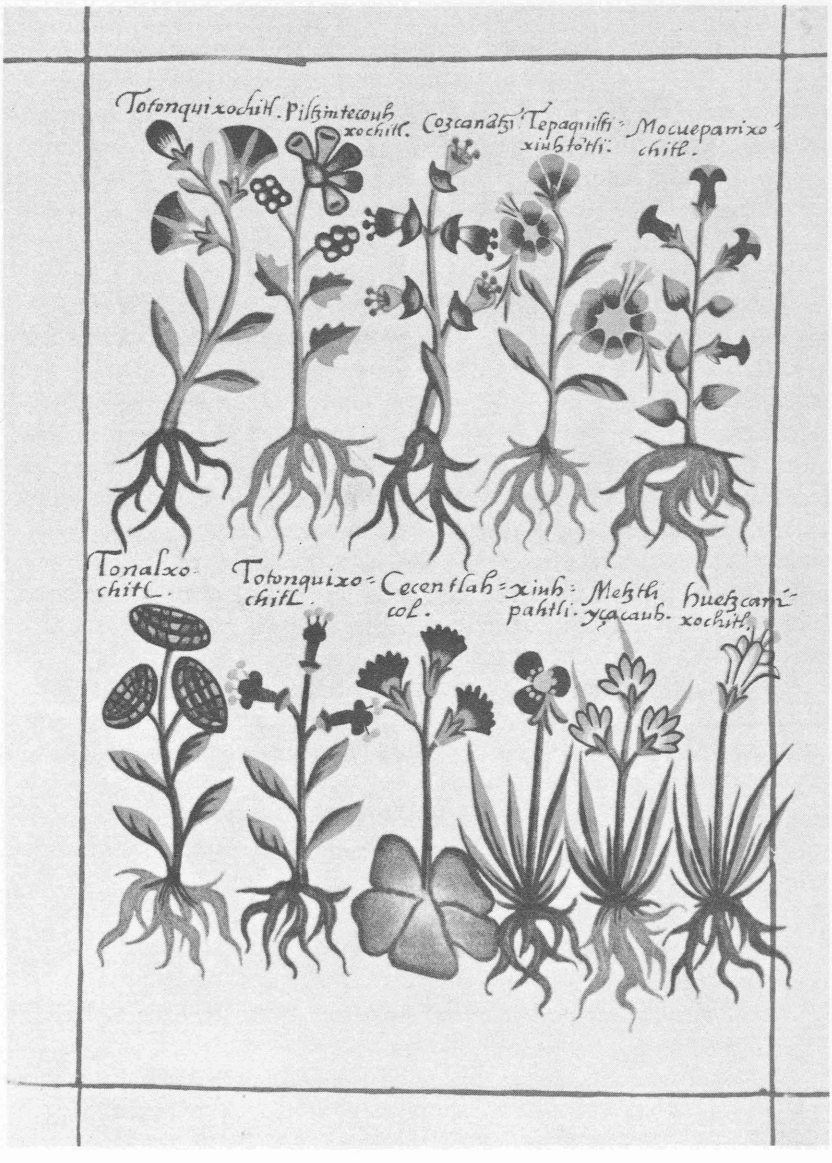
[8]The Library's copy of the Badianus Manuscript is a facsimile of the original in the Vatican Library.



From the *Badianus Manuscript*, facsimile edition, Baltimore, Johns Hopkins Press, 1940. Reproduced by courtesy of Johns Hopkins University Press.

As a cure for falling hair, the herb *xiuhhamolli* is recommended, "ground and cooked in the urine of a dog or a stag, with tree frogs and the small animals *auatecolotl* (caterpillar)."

As for a cracked skull,

> Herbs that spring up in the summer, wet with dew, ground up in the blood of a punctured vein and white of egg with emerald, pearl, crystal and *tlahcalhuatzin* and little earthworms are to be smeared on the fractured head; when there is no blood found, burned frogs will serve.

In conclusion, I can not resist saying that the collection of herbals in the libraries of Syracuse University has stimulated me to enter the ranks of collectors. Others with a similar leaning may be interested to know that, among the books described above, I have acquired both editions, 1633 and 1636, of Johnson's revision of the Gerard *Herbal* and am negotiating with a London merchant for the Dodoens work. Recently I bought an interesting related reference in two volumes, *Historical and Biographical Sketches of the Progress of Botany in England from Its Origin to the Introduction of the Linnaean System*, by Richard Pulteney, published in London by T. Caldwell, 1790.

If there are *Courier* readers who know of other early herbals that might be available to a "hooked" collector, I would be everlastingly grateful for a tip as to their whereabouts!